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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,843

11/30/2004

Gerhard Bonnet

PTK0026

8953

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12/28/2006

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FORT WAYNE, IN 46802

EXAMINER

BRAINARD, TIMOTHY A

ART UNIT

PAPER NUMBER

3662

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/28/2006

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/501,843

Applicant(s)

BONNET, GERHARD

Examiner

Timothy A. Brainard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>PTO-1449</u> . |

DETAILED ACTION

Claim Objections

Claims 7 and 16-20 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only See MPEP § 608.01(n). Accordingly, the claims 7 and 16-20 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a)

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merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recites the broad recitation "...width under 5%..." and the claim also recites "...preferably below 1%..." which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 and 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Bonnet (US 7,061,620). The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. Bonnet teaches a device for locally resolved object distance measurement with a frequency shifted feedback emission radiation source for object

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irradiation with irradiation that can be used for distance measurement and a position-sensitive object detection sensor, characterized by the fact that the frequency shifted feedback emission radiation source for object irradiation is configured with a means for increasing emission radiation frequency component beat intensity and the position-sensitive object detection sensor for detection of beat intensity from the object and incoming irradiation not from the object (col 2, lines 20-30 and col 3, lines 20-24), and the position-sensitive object detection sensor is configured for pixel-by-pixel detection of irradiation from the received reflection of the object irradiation and/or other light from the object whereby the position-sensitive object sensor includes a multi-pixel chip for a multi-color detection with a color filter model and/or uses separate multi-pixel element for light and/or irradiation in different wavelength ranges that are illuminated via a beam splitter in the object imaging beam path whereby an image correction stage is used to guide image matching (col 5, lines 5-18).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet as applied to claim 1 above, and further in view of Ito (US 6,856,723). Bonnet does not

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teach the means for increasing radiation frequency component beat intensity is configured as a means for non-stochastic increase of radiation frequency component beat intensity or any element of claim 2 on or below line 4 of claim 2. Ito teaches the means for increasing radiation frequency component beat intensity is configured as a means for non-stochastic increase of radiation frequency component beat intensity (col 3, lines 1-5) but does not teach any element of claim 2 on or below line 4 claim 2. It would have been obvious to modify Bonnet to include the means for increasing radiation frequency component beat intensity is configured as a means for non-stochastic increase of radiation frequency component beat intensity because it is one of multiple design choices with no new or unexpected result.

Claims 3-6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet as applied to claim 1 above, and further in view of Phillips. Bonnet does not teach (claim #3, #15) the frequency shifted feedback radiation source is a laser and the means for increasing radiation frequency component beat intensity, (claim #4) the means to change the seed frequency gradually described in claim 4, (claim #5) a filter used for filtering the beat intensity, (claim #6) the filtering of the filtered alternating signal portions. Phillips teaches the frequency shifted feedback radiation source is a laser and the means for increasing radiation frequency component beat intensity (col 4, lines 10-19), a means to change the seed frequency gradually (col 18, lines 36-40), or a filter used for filtering the beat intensity and the filtering of the filtered alternating signal portions (col 10, lines 28-35). It would have been obvious to modify Bonnet to include the frequency shifted feedback radiation source is a laser and the means for increasing

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radiation frequency component beat intensity, a means to change the seed frequency gradually, or a filter used for filtering the beat intensity and the filtering of the filtered alternating signal portions each is one of multiple design choices with no new or unexpected result.

Claims 7, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet as applied to claim 1 above, and further in view of Huang (US 6,594,061).

Bonnet does not teach signal amplification for conditioning the object detection sensor signals amplification step behind the filtering. Huang teaches signal amplification for conditioning the object detection sensor signals amplification step behind the filtering (fig 1). It would have been obvious to modify Bonnet to include signal amplification for conditioning the object detection sensor signals amplification step behind the filtering because it is one of multiple design choices with no new or unexpected results.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet as applied to claim 1 above, and further in view of Plava (US 2004/0257266). Bonnet does not teach (claim 8 and 9) a stage for determining the distance described in claim 8 and 9 using is configured for distance measurement for purposes of achieving a maximum value of the object detection, or (claim 10) a stage for modifying the seed frequency along with the time is used and an object detection sensor signal evaluation stage as a distance-related measurement value determines a value representative of a time for achieving a preset object signal signature as described in claim 10. Plava teaches a stage for determining the distance described in claim 8 (abs), and a stage for determining the distance described in claim 9 using is configured for distance

measurement for purposes of achieving a maximum value of the object detection, or (claim 10) a stage for modifying the seed frequency along with the time is used and an object detection sensor signal evaluation stage as a distance-related measurement value determines a value representative of a time for achieving a preset object signal signature as described in claim 10 (paragraph 89). It would have been obvious to modify Bonnet to include a stage for determining the distance described in claim 8 and 9 using is configured for distance measurement for purposes of achieving a maximum value of the object detection, or a stage for modifying the seed frequency along with the time is used and an object detection sensor signal evaluation stage as a distance-related measurement value determines a value representative of a time for achieving a preset object signal signature as described in claim 10 because they are one of multiple design choices with no new or unexpected result.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet. Bonnet does not teach the position-sensitive is configured for simultaneous and/or temporally close consecutive sequential receiving and/or evaluation of irradiation from receiving the reflected irradiation from the object on the one hand and other light from the object as described in claim 11. It would be obvious to modify Bonnet to include the position-sensitive object detection sensor is as configured in claim 12 because light detector will detect light reflected form an object regardless of the source of the light.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet as applied to claim 1 above, and further in view of Dietz et al (US 6603537). Bonnet does not teach the position-sensitive object detection sensor is as configured in claim

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12. Dietz teaches the position-sensitive object detection sensor is as configured in claim 12 (col 1, lines 59-67) It would have been obvious to modify Bonnet to include the position-sensitive object detection sensor is as configured in claim 12 because it is one of multiple design choices with no new or unexpected result.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnet as applied to claim 1 above, and further in view of Bolton et al (US 6147779). Bonnet does not teach the position-sensitive object detection sensor as configured in claim 13. Bolton teaches the position-sensitive object detection sensor as configured in claim 13 (col 2, lines 30-33). It would have been obvious to modify Bonnet to include the position-sensitive object detection sensor as configured in claim 13 because it is one of multiple designs with no new or unexpected results.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The combination of Phillips and Ito is also capable of rejecting claim 1.

Double Patenting

Claims 1-3 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 13, and 15 of copending Application No. 10/501842. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are anticipated by 10/501843.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented. With respect to claims 1, although the

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conflicting claims are not identical, they are not patentably distinct from each other because claim 15 of application 10/501843 anticipates claims 1 of the current application. With respect to claims 2, although the conflicting claims are not identical, they are not patentably distinct from each other because claim 2-12, 14 and 20 of application 10/501843 anticipates claims 2 of the current application. With respect to claim 3, although the conflicting claims are not identical, they are not patentably distinct from each other because claim 13 of application 10/501843 anticipates claims 3 of the current application


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy A. Brainard whose telephone number is (571) 272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAB


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